expression of cycloxygenase-2 (COX-2) was detected by immunofluorescence staining and qRT-PCR.

RESULTS After oral administration, aspirin could effectively inhibit platelet P-selectin (CD62P) expression and the ratio of TXB_2 and 6-keto-$PGF_{1\alpha}$ in control group, but failed to take effect in HFD/STZ-induced diabetic mice. The SA concentration in HFD/STZ-induced diabetic mice was still significantly higher than that in normal mice. Immunohistochemical analysis revealed an decreased expression of COX-2 in the HFD/STZ-induced diabetic mice by the aspirin treatment. Compared with control group, the mRNA levels for renal OAT1, OAT2 and SMCT1 were unanimously down-regulated in HFD/STZ-induced diabetic mice, in accordance with the pathological changes of kidney.

CONCLUSIONS Our study reports the novel finding that SA accumulation ;renders AR via breaking the balance of the innate COX-1/COX-2 function in HFD/STZ-induced diabetic mouse model. The mechanism of SA accumulation is largely attributed to the down-regulation of renal transporter function and acidic environment in the diabetic state.

GW26-e2301

The $CHADS_2$ and CHA_2DS_2-VASc scores for predicting ischemic stroke amongst Asian patients with atrial fibrillation: A systemic review and meta-analysis

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OBJECTIVES Both the $CHADS_2$ and CHA_2DS_2-VASc scores are well-validated for predicting risk of stroke among patients with atrial fibrillation (AF), but most validation studies have been in Western populations. Some uncertainty is evident for the selection of which score to guide optimal anticoagulant therapy among Asian populations with AF. We aimed to perform a systemic review and meta-analysis of available studies to compare $CHADS_2$ and CHA_2DS_2-VASc scores for risk stratification and second, to establish which score has a better performance in identifying 'truly low risk' AF patients from Asia.

METHODS A systemic literature search of Cochrane library, Scopus, and PubMed databases was conducted using search terms including atrial fibrillation, $CHADS_2$ and CHA_2DS_2-VASc. Stroke / thromboembolism outcome events at low, moderate, and high risk groups were compared in relation to both scores. Statistical analyses were performed using Revman 5.3 software.

RESULTS 493 records were retrieved, of which 6 cohort studies focusing on non-anticoagulated patients from Asian regions were appraised and included. Absolute event rates were usually lower when patients were categorized as CHA_2DS_2-VASc of 0-1, rather than $CHADS_2$ of 0-1, respectively. Meta-analysis revealed that when compared with the CHA_2DS_2-VASc score, there was a 1.71-fold (95% confidence intervals (CI): 1.26-2.31) elevated risk of stroke when patients were stratified as 'low risk' using a $CHADS_2$ score=0, or a 1.40-fold (95%CI: 1.20-1.64) increase with a $CHADS_2$score=1. A 1.19-fold (95%CI: 1.02-1.38) elevated risk was observed amongst CHADS2 score $\geq$2, but the total number of events were higher when patients were categorized as CHA_2DS_2-VASc $\geq$2.

CONCLUSIONS The CHA_2DS_2-VASc score is superior to the $CHADS_2$ score in identifying 'truly low risk' Asians patients with AF. Rather than a categorical (ie. low/moderate/high risk) approach, Asian guidelines should adopt a 2 step approach, by initially identifying the low risk patients (using the CHA_2DS_2-VASc score) who do not need any thromboprophylaxis, following which effective stroke prevention can be offered to those with $\geq$1 stroke risk factors.

GW26-e1022

Prognostic importance of C-reactive protein in acute myocardial infarction: A systematic review and meta-analysis of prospective studies

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OBJECTIVES It was controversial that whether C-reactive protein (CRP) was a prognostic marker in patients with acute myocardial infarction (AMI). We undertook this meta-analysis to make it clear.

METHODS A systematic literature search was conducted using Medline, PubMed, and Web of Science for prospective studies of patients with AMI that reported outcomes according to serum CRP levels. The relationships between levels of CRP and prognoses were assessed.

RESULTS 10368 patients in 9 studies were identified. Long term follow-up varied from 6 months to 10 years. Mean level of CRP was 8.79mg/L. High CRP levels were associated with higher mortality(odds ratio, 2.40; 95% CI, 1.44 to 3.99; P<0.001) and more heart failure (odds ratio, 2.08; 95% CI, 1.49 to 2.89; P<0.001). The risk of mortality remained evident in subgroup analyses according to cut-off level of CRP. For the cut-off level of 3 mg/L and 10mg/L, the odds ratios of mortality were 2.69 (95% CI, 1.06 to 6.82, P = 0.04) and 2.32 (95% CI, 1.18 to 4.55, P=0.01), respectively.

CONCLUSIONS A high level of serum CRP was significantly associated with poor prognoses in patients with AMI.

GW26-e2308

Cystatin C is Associated with Cardiovascular Autonomic Neuropathy in Newly Diagnosed Type 2 Diabetic Patients

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OBJECTIVES Cardiovascular autonomic neuropathy (CAN) is closely associated with increased mortality in diabetic patients. Several risk factors of CAN have been clearly clarified. However, the impact of cystatin C(Cys C) on CAN is still unclear. Therefore, this study aimed to investigate the association between Cys C and CAN in newly diagnosed type 2 diabetic patients with normal renal function and urinary albumin excretion rate (UAER).

METHODS 90 newly diagnosed type 2 diabetic patients (58% male, mean age: 48 years old) were enrolled. Heart rate variability (HRV) measured by Holter were used to identify CAN. Cys C was measured by particle-enhanced turbidimetric immunoassay (PETIA). Based on the results from HRV, subjects were then further divided into two groups: diabetic patients with CAN (CAN+ group) or without CAN (CAN- group).

RESULTS The positive rate of CAN in newly diagnosed type 2 diabetic patients was 35.6%. Compared with CAN- group (n =58), CAN+ group (n =32) had significantly higher Cys C (0.97± 0.32 vs. 0.75 ± 0.14 mg/L, P =0.02) but no significant differences were observed in creatine, glycated hemoglobin (HbA1c) or UAER between groups. Cys C was correlated with SDNNINDEX (r =-0.38, P =0.04), Low frequency domain(LF) (r =-0.48, P =0.008) and Highfrequency domain(HF) (r =-0.49, P =0.006). Logistic regression analysis revealed that Cys C was an independent risk factor of CAN in this population (OR:1.71, 95%CI:1.57~1.87, P =0.037) after adjusting for creatine, HbA1c and systolic blood pressure.

CONCLUSIONS Prevalence of cardiovascular autonomic nerve is high in newly diagnosed type 2 diabetic patients with normal renal function and UAER. Cys C is associated with CAN in this population.

GW26-e2303

Suboptimal oral anticoagulation use among Chinese nonvalvular Atrial Fibrillation Patients: the Nanchang Atrial Fibrillation project

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OBJECTIVES Oral anticoagulation (OAC, eg. warfarin) is effective for stroke prevention in patients with atrial fibrillation (AF), but underuse of warfarin is common, and data on clinical features associated with non-use in Asian countries are limited. The present study was performed to provide insights into 'real world' OAC use in hospitalized nonvalvular AF patients in the Nanchang AF Project.

METHODS We studied consecutive non-valvular AF patients admitted to cardiovascular department in the second affiliated hospital of Nanchang University between May 2011 and December 2013. Antithrombotic therapy use among AF patients were analyzed in relation to age groups (<40 years, 40-64 years, 65-74 years, $\geq$75 years), and CHA_2DS_2-VASc score strata (low risk (0 for male or 1 for female), 1 for male, high risk ie. $\geq$2). Multivariate regression analysis was conducted to evaluate the predictors of warfarin use.

RESULTS Among the 1453 NVAF patients, warfarin use before admission was extremely low (9.4%) and increased to 44.7% during hospitalization. The proportions of patients on warfarin decreased with age across the four

age groups (52.3% in age<40, 49.8% in age 40-64, 48.3% in age 65-74, 36.7% in age ≥75, respectively). Amongst high risk patients (CHA_2DS_2-VASc score ≥2), 45.1% patients received warfarin after admission. On multivariate analysis, predictors of warfarin use during hospital were hypertension (OR [95%CI], 1.43 [1.14-1.79], P =0.002), the composite of previous stroke/transient ischemic attack(TIA)/thromboembolism (TE) (OR[95%CI], 1.58 [1.17-2.14], P =0.003), age ≥75 years (OR[95%CI], 0.55 [0.43-0.69], P <0.001) and coronary artery disease (OR[95%CI], 0.61 [0.47-0.80], P <0.001).

CONCLUSIONS Our findings show low OAC use in Chinese AF populations, where age ≥75 years and coronary artery disease are negative predictors of warfarin use. Patients with hypertension or previous stroke/TIA/TE are more often prescribed OAC.

GW26-e2502

Ineffective Communication Leads to Unsatisfactory Sexual Activity among Chinese Patients after Percutaneous Coronary Intervention

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OBJECTIVES The status of sexual activity and sexual counseling for patients after percutaneous coronary intervention (PCI) has not been previously investigated in China. This study aims to evaluate the current status of communication regarding sexual matters in China to establish a platform for effective communication.

METHODS This study represents data from 198 patients who participated in a retrospective cross-sectional survey after PCI. Issues concerning preoperative and postoperative sexual activity and sexual counseling were investigated by telephone interview. After initial questionnaire interviews, follow up telephone interviews were used as a means to expand our data in a qualitative manner and better understand patient responses.

RESULTS We investigated frequency of sexual activity, satisfaction and factors influencing sexual activity after PCI, as well as patient perceptions of sexual counseling. 71.5% of the patients resumed sexual activity after PCI, but decreases in frequency (43.7%) and satisfaction (26.2%) appeared. Decreased satisfaction was associated with anxiety about potential recurrent cardiac events and sudden death. 28.5% of patients did not resume sexual activity primarily out anxiety or fear. A relatively large number of patients did not discuss sex-related issues after PCI with their partners (78.3%) or doctors (97.5%). Nonetheless, 72.1% of these patients considered it to be appropriate for doctors to discuss sex-related issues with patients. Telephone follow-up (43%) or private in person conversations were generally (40.3%) considered acceptable for physician patient communication.

CONCLUSIONS Abnormal or unsatisfactory sexual activity following PCI is prevalent exists in China, which results largely from the ineffectiveness of communication. Effective solutions must be sought to help such post-PCI patients with rehabilitation of sexual activities.

GW26-e5399

The role of real time three-dimentional echocardiography in two cases of successful transapical closure of paravalvular regurgitation only guided by echocardiography

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OBJECTIVES Transcatheter closure of paravalvular regurgitation(PVR) have been used with varying degrees of success, while transapical closure of PVR only guided by echocardiography is highly infrequent. We presented two cases of successful transapical closure of PVR, and discussed the role of real time three dimensional echocardipgraphy (RT-3D TEE).

METHODS The clinical and echocardiographic characteristics of the two patients who diagnosed as PVR after mitral valve replacement of rheumatic heart disease by echocardiography in our hospital were analyzed

RESULTS One patient was 43 years-old woman (case 1) and another was 52 years-old man(case 2), both of them had accepted mitral mechanical prosthetic valve replacement for many years and moderate to server PVR was detected by echo.

Before the operation, RT-3D TEE not only provided the location and shape of the paravalvular leak, but also measured the leak dimensions exactly to offer the accurate closure-device size for the physicians. The paravalvular leak of Case 1 was nearly-circle and the location was 6 clock on the anatomic view. The paravalvular leak of case 2 wasn't revealed clearly by RT-3D TEE, whereas the location and shape of the leak were demonstrated accurately by color RT-3D TEE.

During the operation, the echocardiography was not only used to confirm the apical puncture point, guide the passage of the guide wire and catheter through the defect, but also evaluate the residual PVR and the motion of the leaflets.

After the operation immediately, case 1 had mild residual PVR as well as case 2 had trace residual PVR, meanwhile the closure-device was stable and displayed clearly by 3D echocardiography.

CONCLUSIONS Echocardiography is not only the first choice of the diagnostic approach for PVR, but also pays a prominent role in guiding the device closure and evaluating the therapy effect, especially the RT-3D TEE in the transapical closure of PVR.

GW26-e1317

Trial sequential analysis of the efficacy of Fasudil in Chinese patients with pulmonary hypertension

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OBJECTIVES Activation of Rho-A/Rho-kinase pathway found recently is one of the pathogenic mechanisms on pulmonary hypertension. It is necessary to evaluate the efficacy of Rho-kinase inhibitor Fasudil for the treatment of pulmonary hypertension based on principle of Meta-analysis and trial sequential analysis.

METHODS All randomized controlled trials, were searched from Medline (via Pubmed.com), Embase, Cochrane Library, Web of science, Chinese Biomedical Literature Database, Chinese National Knowledge Infrastructure, Chinese Scientific Journal Database and Wanfang Med Online Database up to January 2015. Literatures were searched through the manual and computer criteria. Two reviews independently evaluated studies and extracted data. The method of Jadad scale (5 score totally) was used to evaluate the quality of trials, RevMan 5.2.3 and TSA software were managed for data analysis. Relative risk and mean difference with 95% confidence interval were performed with fixed or random effect models. The values of I^2 from 0% to 50% was regarded as "heterogeneity might not be important"; the values of I^2 between 51% and 75% was regarded as "moderate heterogeneity"; the values of I^2>75% was regarded as "substantial heterogeneity".

RESULTS The total amount of 8 randomized controlled trials with low bias risk (Jadad scale score≥3) was included. Based on Meta-analysis, the experiment group had significant improvement versus the control group on overall efficiency rate (6 trials including 562 patients, sample size of experimental group/control group=281/281) with moderate heterogeneity (Cochrane's chi-square test: Chi^2=10.99, P=0.05, I^2=55%; test for overall effect: RR=1.22, 95% CI 1.09 to 1.36, Z=3.51, P=0.0004), which was confirmed in trial sequential analysis because the cumulative Z-curve crossed the monitoring boundaries (RRR=20%, incidence in control arm=72.9%, estimate of I type error=5%, power=80%, required information size=670, OD=50%). No sufficient evidence confirmed that Fasudil was able to reduce systolic pulmonary artery pressure (5 trials including 380 patients, sample size of experimental group/control group=190/190), for trial sequential analyses indicated that neither the required information size nor monitoring boundary was exceeded by the cumulative Z-curve (estimate of I type error=5%, power=80%, required information size=1733, OD=100%).

CONCLUSIONS Rho-kinase inhibitor Fasudil has some positive effects on overall efficiency rate for pulmonary hypertension. However, to approve the efficacy on systolic pulmonary artery pressure, multicentral and rigorous designed randomized controlled trials are still needed because of sample size limited.

GW26-e5351

The clinical value of Lung Ultrasound surveying in the Late Goal Directed Fluid Removal

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OBJECTIVES Fluid resuscitation plays a major role in the treatments of shock. And sonography is readily practical and non-invasive making it become a useful diagnostic method in critical care. In this study, we observed the change of lung ultrasound B-lines in shock and postoperated patients who admitted in ICU, in order to better understand the lung edema in the process of fluid resuscitation.